

Mapping into meaning: What's *behind* language?

“Meaning construction involves the apprehension of a novel experience as a kind of memory, through the active mapping of new experiences onto ready-made models.”

Bradd Shore
*Culture In Mind: Cognition, Culture,
& The Problem Of Meaning*
p. 339

Cognitive linguistics

- There has been a movement from seeing syntax and semantics as independent to seeing them as deeply interdependent
 - Grammaticality judgments often depend on context and use
- Cognitive linguistics attempts to find systematic semantic relations, analogous (perhaps?) to the systematic relations sought in syntax
- How can we describe such relations? What will they be like? What will be relating to what?

What's a mapping?

- One way to think of semantic relations is as *mappings*
 - These will be functions just like those we considered in speaking about syntax
 - They will relate a very wide domain of entities, perhaps in very abstract ways (like syntax does)
 - The extreme abstraction that is required is both their power (they can be used across many domains) and their explanatory weakness (Is mapping too general concept to tell us anything definite about language?)

A lexically entrenched mapping

- A common example is 'time is space' (Lakoff)
 - We see the future ahead of us, and the past behind
 - We see events spread out in time, like objects placed on a path that recedes from us in both directions
 - Time can stretch out in front of us
 - Events approach us from the future and recede into the past (and can be around the corner, as spring is now)
- We use this mapping so easily that it is almost impossible to decide: Is it 'really true' or is it ['just'] a metaphor?
 - Lee & Nicoladis: It's a learned metaphor

Do mappings allow symbols?

- An sign can refer:
 - Iconically: By resemblance
 - Indexically: By contiguity in time or space
 - Symbolically: But HOW?

Displaced reference

- We might (debatably) get some word-like functions out of symbols defined by contiguity (*after all, don't animals?*)
- But most (*all?*) words refer to elements which cannot (or need not) be marked by concrete (iconic or indexical) reference

Why is so much reference displaced?

- Either because there is no concrete thing to refer to (abstract words; fiction) or because we refer to novel situations that we have not experienced
'I was all languaged out'; 'Bureaucrats are the toe-jam of humanity'
- These require abstract mappings between domains covered by two things: e.g. *the current situation and language* (and between *language and being Xed out*); or between *bureaucrats and inconsequential but unpleasant things that we have to live with*

What's a mapping?

- Fauconnier (1997): *Mappings In Thought And Language*
 - i.) Mappings are often transparent
 - ii.) Mappings are often automatic
 - iii.) "There is no formal difference between the lexically entrenched (opaque) cases [of mappings] and the ones that are consciously perceived as innovative." (p. 9)

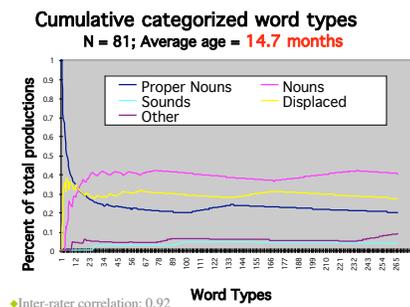
Example: Mappings in early life

- One way of seeing how common and natural mapping it is to look for mapping in very early behavior
- Infants map between domains before they can speak (pretend play which incorporates 'as if')
 - Gregory Bateson: Play as quasi-linguistic
- Westbury & Nicoladis, 1997: Very early speech (*first ten words*) almost always (96% of the time) includes words with displaced reference: words which require abstract mappings between situations, because they refer to elements which cannot be marked by concrete (iconic or indexical) reference

Example: Mappings in early life

- Examples of words with displaced reference:
 - Situation-specific exclamations such as 'ohoh'.
 - Social words such as 'hello'
 - Quantifiers such as 'more'.
- Non-examples of words with displaced reference:
 - General exclamations such as 'mmm' or 'ah'
 - Adjectives such as 'yummy', which refer to private sensations
 - Onomatopoeic words such as 'bowow'

Example: Mappings in early life



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- Almost no children (4%) have no such words in their early productions, while 28% have more than 30% of their very early productions fall into this category
- Upshot: Abstract domain mapping appears very early in human development
[and it ~never appears in animal development]

A typology of maps

Fauconnier discusses 4 main kinds of mappings:

1. Projection mappings
2. Pragmatic function mappings
3. Schema mappings
4. Mental-space mappings

A typology of maps

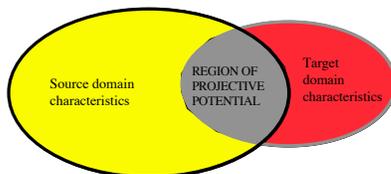
- Projection mappings are the most basic form of mapping: the others may be seen as variants of projection mapping
- Fauconnier discusses 4 main kinds of mappings:
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Projection mappings

- Projection mappings use (part of) the apparent structure of one domain (the *source domain*) to parse the structure of another domain (the *target domain*)
- Metaphors (such as ‘time is space’) are projection mappings

Projection mappings

- Projection mapping can be seen as a selection across the identified points of intersection of two domains (source and target):



Pragmatic function mappings

- Pragmatic function mappings use function to make a mapping
 - For example, we classify books by their author (‘Are you reading another Dostoyevsky?’) or we refer to the Queen as ‘the crown’ or the police as ‘the law’
- Metonymy: Substitution of a one thing for another based on their association.
- Synecdoche: Substitution of a part is used for the whole
 - ‘All hands on deck’
- Clearly, one could argue that pragmatic function mapping is a form of projection mapping

Schema mappings

- Schema mappings use one model/frame/schema/grammar/rule-set to structure another situation in a particular context
 - We have previously discussed syntax as a kind of schema mapping, since it specifies roles that must be played by different entities

Schema mapping example

- The syntax of ‘buy’ specifies the need for a subject (buyer) and object (the thing bought)- but it also specifies the semantics of buying and selling (and there is a sense that semantics comes first; that syntax mirrors semantics?)
 - The schema for buying and selling will include a great deal more, allowing a rich set of inferences to be made once one knows one is in a ‘buying and selling’ context
- A schema is a kind of computational short-cut, that compresses previously discovered information about situations into an easily transmissible format (Wittgenstein’s ‘form of life’)
- A culture is a set of schemas

Mental space mappings

- Mental space mappings are specific to the mental spaces set up in discourse, especially those that go outside of experience
 - Hypotheticals: Possible worlds
 - “If I could be an astronaut, I would”
 - Counterfactuals: Worlds that contradict actual facts
 - “If George Bush were not president, the world wouldn’t be at war.”
 - Quantification: Using ‘some’ or ‘all’ or ‘a few’
 - “Some politicians are mostly trustworthy.” or “Some politicians are only a little trustworthy.”

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 - Atemporal ‘when’: Hypothetical dependent events
 - “When world views collide, people die.”
 - Narrative tenses: Moving between different times in discourse
 - “I was riding down the road and suddenly I found myself being picked up off my horse and then hurled against the ground, as if from a giant hand.” or “I’m going to Toronto tomorrow.”
 - Deictics: Picking out aspects of the world
 - “This way of thinking is difficult to grasp.”

The ordinariness of mapping

- A vital point is that these sometimes very abstract mappings are not confined to formal language used in specialized settings: *they are used all the time, as a matter of course, by every language speaker, including very unsophisticated speakers (young children)*
- They are not just one possible use of language; *they are the very means by which language is made possible*
- When we are sensitized to mappings, we will notice that every sentence sets up domains and maps between them; that metaphors are built deep into our most ordinary language; that we juggle almost impossibly complex perspectives multiple times per second without missing a beat

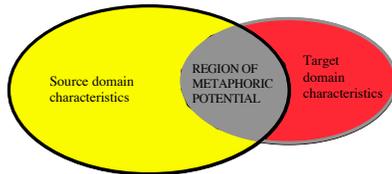
[Try counting the domains on this slide!]

An example

- “If I were your father, I would spank you.”
 - i.) “Your father is too kind; if I were him, you’d be getting a spanking now.”
 - ii.) “I’m kinder than your father; if it were him instead of me here, you’d be getting spanked, pal.”
 - iii.) “Fathers in general would be spanking children like you about now.”
- How do we know which is right? Pragmatic context usually carries the weight

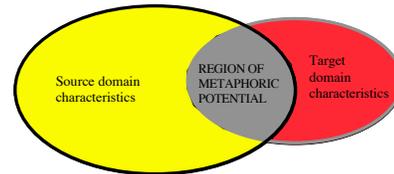
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- Metaphor can be construed as a selection across the identified points of intersection of two domains (source and target):



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Seems familiar, don't it?

Is metaphor the basis of meaning?

- Maybe it is.
- It could be that:
 - We have some shared experiences of concrete reality
 - We use those experiences to build up new (abstract or imaginary) ways of understanding those and other experiences by using understandable metaphors = projection mapping or metaphor
 - We share metaphors that work (“think of it this way...”) and pass them onto our kids
 - They reject some, accept most, and repeat

Metaphor as the basis of meaning

- Many (all?) abstract concepts are built upon analogy to concrete experience
- Some of those abstractions are entrenched in language either as syntax/morphology (tenses, hypotheticals) or through lexicalization (like compound words, deictics, quantifiers) or entrenched metaphors (like ‘time is space’)

Where is a metaphor entrenched?

- Entrenched metaphors become invisible (unconscious) to us
- Many of those invisible metaphors were painstakingly constructed over a long period of (historical or evolutionary) time
- Many were transmitted to us by people to whom they were also invisible
- You and I are the recipients of these unconscious conceptual tools, which have been selected over a long period for their utility in doing the kind of stuff people like to have done
- The strong question is: Without this entrenchment of its conceptual underpinnings in mapping between domains, would language be impossible?